

CLAIMS

1. A method for treating textile materials, that includes treating of textile materials by sound and subsonic waves into water environment and presence of washing detergents, characterized in that the textile materials are treated in water environment continuously for 40-60 minutes simultaneously subjected to the sound and subsonic waves with 8,5-32 kHz frequency and with the presence of a constant magnetic field with intensity 10-50 Gs, which under the influence of subsonic waves into the water solution disperses silver particles with 10-100nm size, generating at the same time a silver ions concentration in a range of $1 \cdot 10^{-7}$ - $2 \cdot 10^{-8}$ g/l.
2. Device for realizing the method according to Claim 1, comprising electrically connected generator and activator, the activator consists of body with transmitter of mechanical fluctuations, made of piezo-ceramical element, situated inside it, characterized in that at least one transmitter of mechanical fluctuations is situated inside the body of the activator and even number of magnets are placed around the transmitter. In the activator at least one element is situated, filled with porous material saturated with silver with quantity 0.2 – 0.5 g. in the form of particles with size 10-100 nm.
3. Device according to Claim 2, characterized in that the transmitter comprises piezo-ceramical element formed as cylinder, truncated cone or spherical segment.
4. Device according to Claim 2, characterized in that the transmitter comprises two piezo-ceramical elements placed apart from each other.
5. Device according to Claim 2, characterized in that in the transmitter four magnets are placed, forming a circle and at even distance from each other.
6. Device according to Claim 2, characterized in that the transmitter comprises one piezo-ceramical element and even number of magnets placed in non-circular form.
7. Device according to Claim 2, characterized in that the poles of the magnets are perpendicular to the plane that lays the piezo-ceramical element.
8. Device according to Claim 2, characterized in that the total surface of the magnet poles is equal or smaller than the surface of the piezo-ceramical element.

9. Device according to Claim 2, characterized in that the piezo-ceramical element in the shape of cylinder with its diameter and height in ratio no less than 5:1.

10. Device according to Claim 2, characterized in that the piezo-ceramical element has porous structure and is saturated with silver in the form of silver particles with size from 10 to 100 nm.

11. Device according to Claim 2, characterized in that the generator is made as controllable generator with compulsory excitation.